Burns: Adult & Pediatric

TOC

Includes:
- Patients sustaining thermal burns.
- Patients who are exposed to electrical current (AC or DC).
- Patients of all ages who have been the victim of lightning strike injury.

Excludes:
- Chemical and radiation burns, refer to **Dermal Chemical Burns** or **Radiation Exposure**, as needed.

EMT

- Verify scene is secure.
- Initiate **Universal Care** and refer to **Airway Management**, as indicated. Do not use supraglottic for airway burns.
- Assess for cardiac arrest.
  - Even patients who appear dead may have good outcomes with prompt intervention, refer to **Cardiac Arrest (VF/VT/Asystole/PEA): Adult & Pediatric**.
- Determine characteristics of source if possible. AC or DC, voltage, amperage, time of injury.
- Consider pain management. Refer to **Management of Acute Pain**.
- Monitor oxygen saturation, provide supplemental oxygen as needed. Place on high flow oxygen nonrebreather mask if patient rescued from confined space.
- Refer to **Carbon Monoxide/Smoke Inhalation**, **Cyanide Poisoning** as needed.
- Assist respirations as needed.
- Stop the burning:
  - Soak clothing and skin with water if burning or smoldering.
  - Remove clothing if not stuck to patient.
  - Remove jewelry.
- Evaluate for high risk burn injuries, refer to **Burn Triage**.
- Leave blisters intact.
- Cover burns with dry dressing or clean sheet.
- Keep patient warm.
- Estimate BSA burned and depth of burn, refer to **Burn Estimation Charts**.
- IV access and initiate IV fluids as indicated. (STR for EMT) Avoid placement through burned skin, if feasible.
  - Initiate fluid resuscitation:
    - 20 mL/kg IV/IO fluid bolus, repeat as needed.
    - If patient in shock, give fluid per **Shock**.
- Manage pain appropriately, refer to **Management of Acute Pain**.
- Obtain waveform capnography (ETCO2) and SPO2 as indicated. (ETCO2 is STR for EMT)

AEMT

EMT-I/Paramedic

Burn Triage

TOC

Does The Patient Have Any Of The Following?

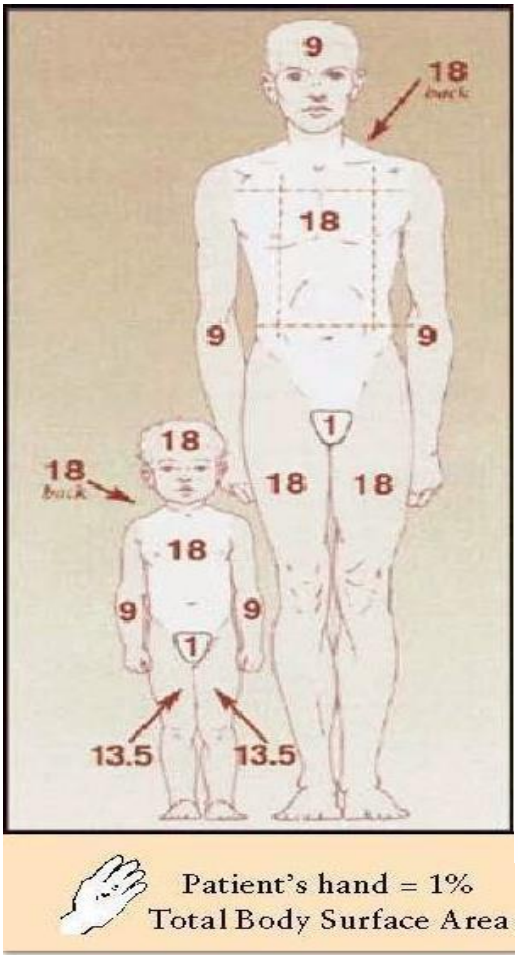
1. Partial thickness burns ≥ 10% Total Body Surface Area
2. Any full thickness burns of any age group
3. Burns that involve the face, hands, feet, genitalia, perineum, or major joints
4. Circumferential Burns
5. Electrical burns including lightning injury
6. Chemical burns
7. Radiation Burns
8. Inhalation injury or airway compromise
9. Burn injury with pre-existing medical disorders: CHF, ESRD, COPD, or cardiac that could complicate management, prolong recovery, and affect mortality
10. Burns with concomitant trauma (such as fractures)
11. Pediatric burns, especially requiring ICU care
12. Burn injury in patients who will require special social, emotional or long-term rehabilitation

No	Yes
Courtesy notification to receiving facility of patient's choice.	Prepare patient for transport to burn or trauma center based on *regional guidelines*.

Burn Estimation Charts

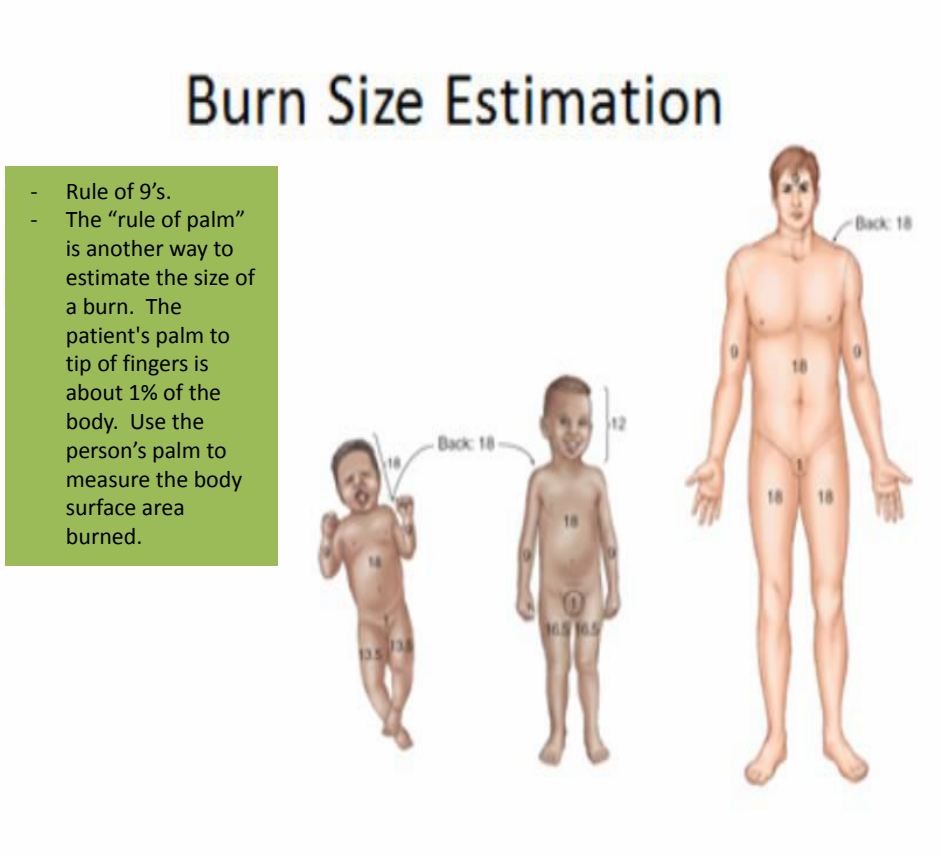
TOC

Burn Size Chart 1



Source: University of Utah Burn Center

Burn Size Chart 2



Percentage of Total Body Surface Area by Age and Anatomic Structure			
	Infant < 10 kg	Child	Adult
Head and neck	20%		
Anterior head		9%	4.5%
Posterior head		9%	4.5%
Anterior torso	16%	18%	18%
Posterior torso	16%	18%	18%
Leg, each	16%		
Anterior leg, each		6.75%	9%
Posterior leg, each		6.75%	9%
Arm, each	8%		
Anterior arm, each		4.5%	4.5%
Posterior arm, each		4.5%	4.5%
Genitalia/perineum	1%	1%	1%